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EXAMINER	
KRUER, STEFAN	

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The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES.**

Application Number: 10/564,873  
Filing Date: January 17, 2006  
Appellant(s): FARGO ET AL.

**MAILED**

**AUG 06 2007**

**GROUP 3600**

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David J. Gaskey

For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7 May 2007 appealing from the Office action mailed 14 December 2006.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

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**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 – 7, 9 and 12 – 13, 15 and 20** are rejected under 35 U.S.C. 102(b) as being anticipated by Fuller et al (5,750,945).

**Re: Claim 1**, Fuller et al disclose:

- A car (12, Fig. 1),
- A counterweight (32),
- A load bearing member (14) supporting the car and counterweight such that the car and counterweight move in opposite directions,
- A termination (36) associated with at least one end of load bearing member,
- Wherein a portion (49) of the termination moves against a first bias (52) of the termination responsive to a tension on the load bearing member below a selected threshold ( $K_{52} x_{52} + K_{54} x_{54}$ , when  $0 \leq x \leq x_{52}$  and  $x_{54} = 0$ ) and moving against a second, passive bias (54) of the termination responsive to a tension that exceeds the threshold ( $K_{52} x_{52} + K_{54} x_{54}$ , when  $0 < x \leq x_{52}$  and  $0 < x \leq x_{54}$ ).

**Re: Claim 2**, Fuller et al disclose:

- The termination includes a termination member (49) and a support member (46),
- Wherein the termination member moves relative to the support member responsive to the tension below the threshold,
- Wherein the support member moves with the terminating member when the tension exceeds the threshold.

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**Re: Claims 3 - 5,** Fuller et al disclose:

- A damper (54) that resists movement of the support member and wherein the damper partially absorbs the tension,
- Said damper comprising a mechanical spring,
- Said damper is preloaded, typically known as spring constant; such that the damper prevents the movement of the support member when the tension on the load bearing member is less than the selected threshold.

**Re: Claims 6 and 13,** Fuller et al disclose:

- Wherein the terminating member and the support member are moveable relative to a stationary surface (40) and wherein the termination includes a tension member (52) near an end (threaded portion with nut) of the terminating member that is distal from the load bearing member between the distal end and the support member,
- Said tension member biasing the distal end from the support member,
- A damper or second, passive biasing member (54) acting against an opposite side of the support member between the support member and the stationary surface,
- The damper (54) biasing the support member away from the stationary surface.

**Re: Claim 7,** Fuller et al disclose their tension member and damper as springs.

**Re: Claim 9,** Fuller et al disclose their termination supported for movement with the car.

**Re: Claim 12,** Fuller et al disclose their first and second bias members (52, 54), said members being remote from another.

**Re: Claim 15,** Fuller et al disclose their first and second biasing members as springs.

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**Re: Claim 20**, Fuller et al disclose their first and second biasing members as hitch devices.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 8, 14, and 16 - 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al, as applied to Claim 2, and in further view of Fuller et al (6,216,824, henceforth referenced as Fuller').

**Re: Claims 8, 16 and 17**, Fuller et al disclose their support element (40) comprising a plank; however, they are silent regarding a guide structure.

Attention is directed to Fuller' who teach their guide structures (48), whereby said guide structure support said plank and permit movement of said plank toward the stationary surface when the tension exceeds the threshold.

It would have been obvious to one of ordinary skill in the art to modify the invention of Fuller et al with the teaching of Fuller' to provide the support element with a plank and guide structure to inhibit sideward deflection and thereby promote tension and dampening control.

**Re: Claim 14**, Fuller et al discloses his terminating member having a clamping mechanism (screw on threaded section) as a form of rope termination.

Attention is directed to Fuller' who teach their terminating member having thimble rods (49, Fig. 3, Col. 4, Line 48) to provide a resilient, securing structure.

It would have been obvious to one of ordinary skill in the art to provide the invention of Fuller et al with the thimble rods as taught by Fuller' to properly finish the ends of the rope and provide a compatible means for terminating structures.

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**Re: Claim 18 and 19**, Fuller et al is silent regarding a preloading or stiffness of their biasing members and, as reviewed in **Claim 16**, does not disclose a guide structure for their support member.

Fuller' teach their first and second biasing means having unique stiffness, whereby his second biasing means offers a "...soft spring..." whereby its "...spring constant is less than half that of the rope..." as a means to dampen relatively low frequency (Col. 5, Lines 30 and 55), whereby their first biasing means supports the weight of the elevator car without the need for engagement of the second biasing means (Col. 4, Line 66).

It would have been obvious to one of ordinary skill in the art to modify the invention of Fuller et al with the teachings of Fuller' to provide a hitch device having disparate biasing members of unique stiffness, thereby acting as primary and secondary dampers, to promote vehicular stability for rider comfort.

**Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al, as applied to Claim 1, and in view of O'Donnell et al (6,123,176).

Fuller et al are silent regarding the termination supported for movement with the counterweight.

Attention is directed to O'Donnell et al who teach the conventional art of termination (46, Fig. 1) for movement with the counterweight.

It would have been obvious to one of ordinary skill in the art to modify the reference of Fuller et al with the teaching of O'Donnell et al to provide dampening of terminations at both loads of a common load bearing member to minimize jar.

**Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller et al, as applied to Claim 1, and view of Wagatsuma et al (6,234,276).

**Re: Claim 11**, Fuller et al are silent regarding the termination having a fixed position in relation to a machine causing selective movement of the car; nevertheless, terminations mounted in vicinity of guide rails and shaft surfaces, thereby maintaining a fixed position in relation to the elevator machine, are well known in the art.

For instance, Wagatsuma et al disclose the prior art (Fig. 1) of having terminations (106) fixed in a relative position to the machine (107) mounted in a machine room (19) as well as their inventive feature of terminations mounted on guide rails in elevators without a machine room (Fig. 19).

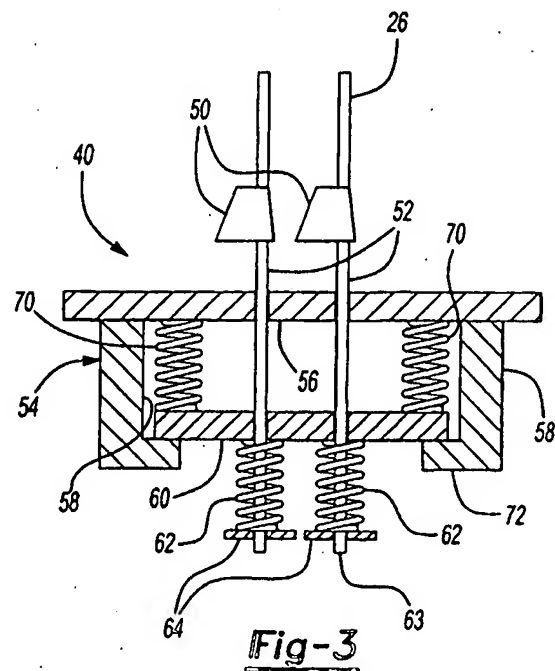
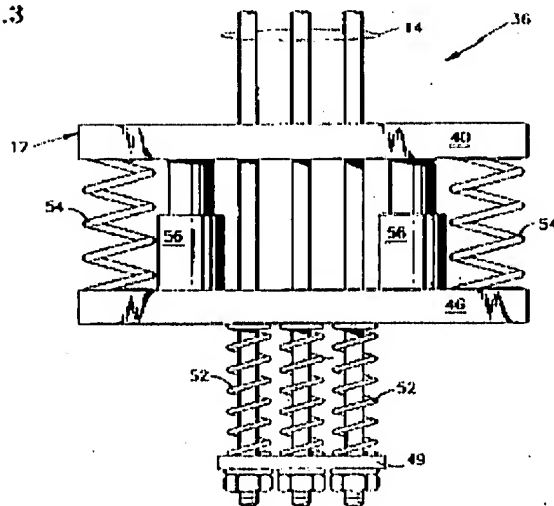
It would have been obvious to one of ordinary skill in the art to modify the reference of Fuller et al with the teaching of Wagatsuma et al to provide damping of load bearing members in elevators with and without machine rooms.

### (10) Response to Argument

With respect to applicant's arguments regarding the rejections of Claims 1 – 7, 9 and 12 as being anticipated by Fuller '945, and Claims 8, 17 and 19 as being obvious over Fuller '945 in view of Fuller '824, the focus of the applicant's arguments is that the invention of Fuller '945 does not disclose the ability of meeting the functional claim language of Claim 1, which commences in Line 7.

The following figures represent the disclosures of the prior art of reference and that of the instant invention, from left to right, respectively:

FIG.3





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In making his arguments, the applicant does not dispute the structure of the prior art of reference in its anticipation of the recited structure of the referenced claim, but rather the ability of the prior art of reference to perform in the manner as interpreted from claim language.

The applicant contests that a portion (49) of the termination (36) moves against a first bias (52) in response to a tension on the load-bearing member (14) prior to said portion moving against a second bias (54), wherein the load-bearing member is an elevator rope and said portion is a plate that secures the first bias (hitch springs) between a support member (46) and the threaded end of the load-bearing member.

In that the elevator rope passes through the support plate, and the support plate is not otherwise fixed, the support plate can move upwards against said second bias.

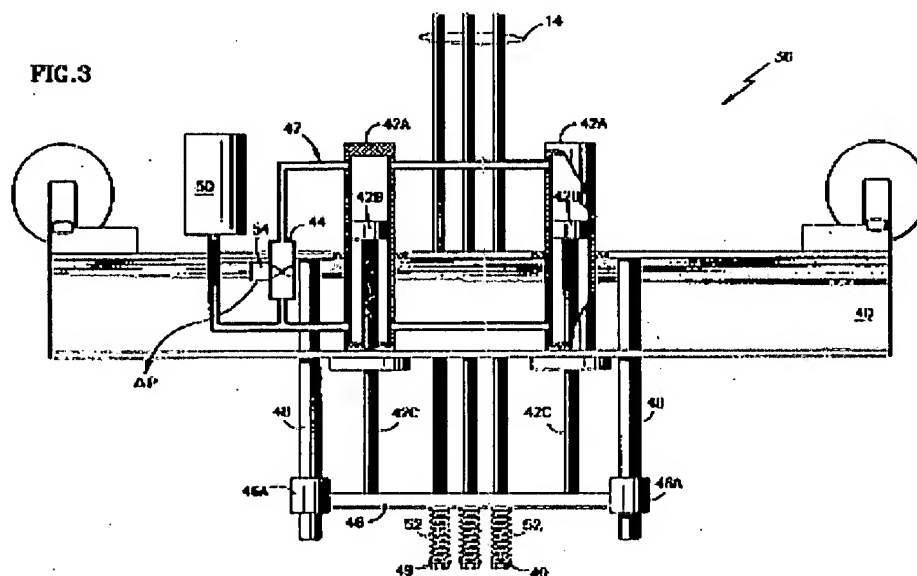
In that said first bias is intermediate of said portion of the termination and said support member, the first bias will undergo compression as tension on the load-bearing member is applied. The amount of compression (compressed length,  $x$ ) of said first bias is proportional to the amount of tension (force) applied to the load-bearing member and a (set) force constant (signified as  $K$ ) of said first bias, as reviewed in the rejection above.

As the tension increases and the first bias compresses further, due to its set force constant, a selected threshold (dependent upon the force constant and the amount of compressed length) is reached at which point said portion moves against said second bias that acts in series with said first bias. Said second bias is secured between said (movable) support member and a stationary surface (40).

Applicant argues further that the second bias of Fuller '945, though passive, is not critical to his termination in that his second bias provides only partial support of his car and can therefore be eliminated, if an appropriate active (second) bias (56) is selected. Though the specification of reference does

disclose such, Fuller '945 nevertheless anticipates said first and second, passive biases.

Applicant further argues with respect to Claim 17 that the Fuller '824 reference as shown below discloses the use of hydraulic or gaseous damping (second bias) in lieu of the mechanical (spring) damping of Fuller '945 and therefore the use of the guide structure (48) of Fuller '824 is non-obvious in its application to Fuller '945.



Applicant argues further that the inventive second bias of Fuller '824 offers a further feature of initial "lifting" force of the car in relation to the load-bearing member, in that a pressure accumulator (50) is pre-pressurized to force pistons of (hydraulic/gas) cylinders to a mid-range position; however, this feature in itself is inconsequential to the use of the guide structure. Furthermore, this preset pressurization is similar in principal to a set force constant of Fuller '945 (additionally, the cylinders in combination with the accumulator (50) provide a "soft spring" effect and are in fact considered a "passive gas hitch spring" (Col. 5, line 8) in keeping with the energy dissipating feature of the instant invention).

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The arguments made with respect to Claims 10 and 11 are without merit, in that Fuller '945 address the control of oscillation incurred in load-bearing members of elevators and the references of O'Donnell and Wagatsuma as applied to claims 10 and 11, respectively, are similarly directed to oscillation damping of load-bearing members of elevators, wherein said load-bearing members are connected to counterweights and fixed positions respectively.

Finally, arguments made with respect to the balance of the claims are non-persuasive in view of the grounds of the rejections as reviewed above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

Stefan H. Kruer

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